PCT/IO

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RAW SEQUENCE LISTING                        DATE: 08/30/2002
PATENT APPLICATION:  US/10/018,892          TIME: 15:38:02

      Input Set : A:\2577-112.txt
      Output Set: N:\CRF4\08302002\J018892.raw
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   3 <110> APPLICANT: Kwang, Hwei-Sing
   4        Liu, Wei
   5        Low, Su-Shing Sharon
   6        Loh, Hilda Kwanyeng
   8 <120> TITLE OF INVENTION: Detection of Salmonella Enteritidis
  10 <130> FILE REFERENCE: 2577-112
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/018,892
C--> 12 <141> CURRENT FILING DATE: 2002-08-06
  12 <150> PRIOR APPLICATION NUMBER: PCT/SG99/00061
  13 <151> PRIOR FILING DATE: 1999-06-22
  15 <160> NUMBER OF SEQ ID NOS: 19
  17 <170> SOFTWARE: PatentIn version 3.1
  19 <210> SEQ ID NO: 1
  20 <211> LENGTH: 505
  21 <212> TYPE: DNA
  22 <213> ORGANISM: Salmonella enteritidis
  24 <400> SEQUENCE: 1
  25 attttgtaat atgcgtaaat cagcatctgc agtagcagtt cttgctttaa ttgcatgtgg    60
  27 cagtgcccac gcagctggct ttgttggtaa caaagcagag gttcaggcag cggttactat   120
  29 tgcagctcag aatacaacat cagccaactg gagtcaggat cctggcttta cagggcctgc   180
  31 tgttgctgct ggtcagaaag ttggtactct cagcattact gctactggtc cacataactc   240
  33 agtatctatt gcaggtaaag gggcttcggt atctggtggt gtagccactg tcccgttcgt   300
  35 tgatggacaa ggacagcctg ttttccgtgg gcgtattcag ggagccaata ttaatgacca   360
  37 agcaaatact ggaattgacg ggcttgcagg ttggcgagtt gccagctctc aagaaacgct   420
  39 aaatgtccct gtcacaacct ttggtaaatc gaccctgcca gcaggtactt tcactgcgac   480
  41 cttctacgtt cagcagtatc aaaac                                         505
  44 <210> SEQ ID NO: 2
  45 <211> LENGTH: 165
  46 <212> TYPE: PRT
  47 <213> ORGANISM: Salmonella enteritidis
  49 <400> SEQUENCE: 2
  51 Met Arg Lys Ser Ala Ser Ala Val Ala Val Leu Ala Leu Ile Ala Cys
  52 1               5                   10                  15
  55 Gly Ser Ala His Ala Ala Gly Phe Val Gly Asn Lys Ala Glu Val Gln
  56                 20                  25                  30
  59 Ala Ala Val Thr Ile Ala Ala Gln Asn Thr Thr Ser Ala Asn Trp Ser
  60             35                  40                  45
  63 Gln Asp Pro Gly Phe Thr Gly Pro Ala Val Ala Ala Gly Gln Lys Val
  64     50                  55                  60
  67 Gly Thr Leu Ser Ile Thr Ala Thr Gly Pro His Asn Ser Val Ser Ile
  68 65                  70                  75                  80
  71 Ala Gly Lys Gly Ala Ser Val Ser Gly Gly Val Ala Thr Val Pro Phe
  72                 85                  90                  95
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 75 Val Asp Gly Gln Gly Gln Pro Val Phe Arg Gly Arg Ile Gln Gly Ala
 76             100             105             110
 79 Asn Ile Asn Asp Gln Ala Asn Thr Gly Ile Asp Gly Leu Ala Gly Trp
 80         115             120             125
 83 Arg Val Ala Ser Ser Gln Glu Thr Leu Asn Val Pro Val Thr Thr Phe
 84     130             135             140
 87 Gly Lys Ser Thr Leu Pro Ala Gly Thr Phe Thr Ala Thr Phe Tyr Val
 88 145             150             155             160
 91 Gln Gln Tyr Gln Asn
 92             165
 95 <210> SEQ ID NO: 3
 96 <211> LENGTH: 128
 97 <212> TYPE: PRT
 98 <213> ORGANISM: Salmonella enteritidis
100 <400> SEQUENCE: 3
102 Ala Ala Gln Asn Thr Thr Ser Ala Asn Trp Ser Gln Asp Pro Gly Phe
103 1             5             10             15
106 Thr Gly Pro Ala Val Ala Ala Gly Gln Lys Val Gly Thr Leu Ser Ile
107         20             25             30
110 Thr Ala Thr Gly Pro His Asn Ser Val Ser Ile Ala Gly Lys Gly Ala
111         35             40             45
114 Ser Val Ser Gly Gly Val Ala Thr Val Pro Phe Val Asp Gly Gln Gly
115     50             55             60
118 Gln Pro Val Phe Arg Gly Arg Ile Gln Gly Ala Asn Ile Asn Asp Gln
119 65             70             75             80
122 Ala Asn Thr Gly Ile Asp Gly Leu Ala Gly Trp Arg Val Ala Ser Ser
123             85             90             95
126 Gln Glu Thr Leu Asn Val Pro Val Thr Thr Phe Gly Lys Ser Thr Leu
127         100             105             110
130 Pro Ala Gly Thr Phe Thr Ala Thr Phe Tyr Val Gln Gln Tyr Gln Asn
131         115             120             125
134 <210> SEQ ID NO: 4
135 <211> LENGTH: 493
136 <212> TYPE: PRT
137 <213> ORGANISM: Salmonella enteritidis
139 <400> SEQUENCE: 4
141 Leu Thr Gln Asn Asn Leu Asn Lys Ser Gln Ser Ser Leu Ser Ser Ala
142 1             5             10             15
145 Ile Glu Arg Leu Ser Ser Gly Leu Arg Ile Asn Ser Ala Lys Asp Asp
146         20             25             30
149 Ala Ala Gly Gln Ala Ile Ala Asn Arg Phe Thr Ser Asn Ile Lys Gly
150         35             40             45
153 Leu Thr Gln Ala Ser Arg Asn Ala Asn Asp Gly Ile Ser Ile Ala Gln
154     50             55             60
157 Thr Thr Glu Gly Ala Leu Asn Glu Ile Asn Asn Asn Leu Gln Arg Val
158 65             70             75             80
161 Arg Glu Leu Ser Val Gln Ala Thr Asn Gly Thr Asn Ser Asp Ser Asp
162             85             90             95
165 Leu Lys Ser Ile Gln Asp Glu Ile Gln Gln Arg Leu Glu Glu Ile Asp
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166              100                  105                  110
169 Arg Val Ser Asn Gln Thr Gln Phe Asn Gly Val Lys Val Leu Ser Gln
170          115                  120                  125
173 Asp Asn Gln Met Lys Ile Gln Val Gly Ala Asn Asp Gly Glu Thr Ile
174      130                  135                  140
177 Thr Ile Asp Leu Gln Lys Ile Asp Val Lys Ser Leu Gly Leu Asp Gly
178 145                  150                  155                  160
181 Phe Asn Val Asn Gly Pro Lys Glu Ala Thr Val Gly Asp Leu Lys Ser
182                  165                  170                  175
185 Ser Phe Lys Asn Val Thr Gly Tyr Asp Thr Tyr Ala Ala Gly Ala Asp
186                  180                  185                  190
189 Lys Tyr Arg Val Asp Ile Asn Ser Gly Ala Val Val Thr Asp Ala Ala
190          195                  200                  205
193 Ala Pro Asp Lys Val Tyr Val Asn Ala Ala Asn Gly Gln Leu Thr Thr
194      210                  215                  220
197 Asp Asp Ala Glu Asn Asn Thr Ala Val Asp Leu Phe Lys Thr Thr Lys
198 225                  230                  235                  240
201 Ser Thr Ala Gly Thr Ala Glu Ala Lys Ala Ile Arg Gly Ala Ile Lys
202                  245                  250                  255
205 Gly Gly Lys Glu Gly Asp Thr Phe Asp Tyr Lys Gly Val Thr Phe Thr
206                  260                  265                  270
209 Ile Asp Thr Lys Thr Gly Asp Asp Gly Asn Gly Lys Val Ser Thr Thr
210          275                  280                  285
213 Ile Asn Gly Glu Lys Val Thr Leu Thr Val Ala Asp Ile Ala Thr Gly
214      290                  295                  300
217 Ala Thr Asp Val Asn Ala Ala Thr Leu Gln Ser Ser Lys Asn Val Tyr
218 305                  310                  315                  320
221 Thr Ser Val Val Asn Gly Gln Phe Thr Phe Asp Asp Lys Thr Lys Asn
222                  325                  330                  335
225 Glu Ser Ala Lys Leu Ser Asp Leu Glu Ala Asn Asn Ala Val Lys Gly
226          340                  345                  350
229 Glu Ser Lys Ile Thr Val Asn Gly Ala Glu Tyr Thr Ala Asn Ala Thr
230          355                  360                  365
233 Gly Asp Lys Ile Thr Leu Ala Gly Lys Thr Met Phe Ile Asp Lys Thr
234      370                  375                  380
237 Ala Ser Gly Val Ser Thr Leu Ile Asn Glu Asp Ala Ala Ala Ala Lys
238 385                  390                  395                  400
241 Lys Ser Thr Ala Asn Pro Leu Ala Ser Ile Asp Ser Ala Leu Ser Lys
242          405                  410                  415
245 Val Asp Ala Val Arg Ser Ser Leu Gly Ala Ile Gln Asn Arg Phe Asp
246          420                  425                  430
249 Ser Ala Ile Thr Asn Leu Gly Asn Thr Val Thr Asn Leu Asn Ser Ala
250          435                  440                  445
253 Arg Ser Arg Ile Glu Asp Ala Asp Tyr Ala Thr Glu Val Ser Asn Met
254      450                  455                  460
257 Ser Lys Ala Gln Ile Leu Gln Gln Ala Gly Thr Ser Val Leu Ala Gln
258 465                  470                  475                  480
261 Ala Asn Gln Val Pro Gln Asn Val Leu Ser Leu Leu Arg
262                  485                  490
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Input Set : A:\2577-112.txt
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265 <210> SEQ ID NO: 5
266 <211> LENGTH: 90
267 <212> TYPE: PRT
268 <213> ORGANISM: Salmonella enteritidis
270 <400> SEQUENCE: 5
272 Thr Ala Glu Ala Lys Ala Ile Arg Gly Ala Ile Lys Gly Gly Lys Glu
273 1               5                   10                  15
276 Gly Asp Thr Phe Asp Tyr Lys Gly Val Thr Phe Thr Ile Asp Thr Lys
277             20                  25                  30
280 Thr Gly Asp Asp Gly Asn Gly Lys Val Ser Thr Thr Ile Asn Gly Glu
281         35                  40                  45
284 Lys Val Thr Leu Thr Val Ala Asp Ile Ala Thr Gly Ala Thr Asp Val
285     50                  55                  60
288 Asn Ala Ala Thr Leu Gln Ser Ser Lys Asn Val Tyr Thr Ser Val Val
289 65                  70                  75                  80
292 Asn Gly Gln Phe Thr Phe Asp Asp Lys Thr
293                 85                  90
296 <210> SEQ ID NO: 6
297 <211> LENGTH: 69
298 <212> TYPE: PRT
299 <213> ORGANISM: Salmonella enteritidis
301 <400> SEQUENCE: 6
303 Lys Glu Gly Asp Thr Phe Asp Tyr Lys Gly Val Thr Phe Thr Ile Asp
304 1               5                   10                  15
307 Thr Lys Thr Gly Asp Asp Gly Asn Gly Lys Val Ser Thr Thr Ile Asn
308             20                  25                  30
311 Gly Glu Lys Val Thr Leu Thr Val Ala Asp Ile Ala Thr Gly Ala Thr
312         35                  40                  45
315 Asp Val Asn Ala Ala Thr Leu Gln Ser Ser Lys Asn Val Tyr Thr Ser
316     50                  55                  60
319 Val Val Asn Gly Gln
320 65
323 <210> SEQ ID NO: 7
324 <211> LENGTH: 40
325 <212> TYPE: PRT
326 <213> ORGANISM: Salmonella enteritidis
328 <400> SEQUENCE: 7
330 Lys Thr Gly Asp Asp Gly Asn Gly Lys Val Ser Thr Thr Ile Asn Gly
331 1               5                   10                  15
334 Glu Lys Val Thr Leu Thr Val Ala Asp Ile Ala Thr Gly Ala Thr Asp
335             20                  25                  30
338 Val Asn Ala Ala Thr Leu Gln Ser
339         35                  40
342 <210> SEQ ID NO: 8
343 <211> LENGTH: 27
344 <212> TYPE: PRT
345 <213> ORGANISM: Salmonella enteritidis
347 <400> SEQUENCE: 8
349 Asp Gly Asn Gly Lys Val Ser Thr Thr Ile Asn Gly Glu Lys Val Thr
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Input Set : A:\2577-112.txt
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350 1               5               10              15
353 Leu Thr Val Ala Asp Ile Ala Thr Gly Ala Thr
354             20              25
357 <210> SEQ ID NO: 9
358 <211> LENGTH: 11
359 <212> TYPE: PRT
360 <213> ORGANISM: Salmonella enteritidis
362 <400> SEQUENCE: 9
364 Ser Thr Thr Ile Asn Gly Glu Lys Val Thr Leu
365 1               5               10
368 <210> SEQ ID NO: 10
369 <211> LENGTH: 22
370 <212> TYPE: DNA
371 <213> ORGANISM: Artificial Sequence
373 <220> FEATURE:
374 <223> OTHER INFORMATION: Forward Primer for the C128 fragment of the fimbrial SEF14
antige
375         n
377 <400> SEQUENCE: 10
378 tgcagctcag aatacaacat ca                                22
381 <210> SEQ ID NO: 11
382 <211> LENGTH: 21
383 <212> TYPE: DNA
384 <213> ORGANISM: Artificial Sequence
386 <220> FEATURE:
387 <223> OTHER INFORMATION: Reverse Primer for the C128 fragment of the fimbrial SEF14
antige
388         n
390 <400> SEQUENCE: 11
391 gttttgatac tgctgaacgt a                                 21
394 <210> SEQ ID NO: 12
395 <211> LENGTH: 26
396 <212> TYPE: DNA
397 <213> ORGANISM: Artificial Sequence
399 <220> FEATURE:
400 <223> OTHER INFORMATION: Forward Primer
402 <400> SEQUENCE: 12
403 aaggatccaa aggtggtaag gaagga                            26
406 <210> SEQ ID NO: 13
407 <211> LENGTH: 26
408 <212> TYPE: DNA
409 <213> ORGANISM: Artificial Sequence
411 <220> FEATURE:
412 <223> OTHER INFORMATION: Reverse Primer
414 <400> SEQUENCE: 13
415 ccgaattctt tgtcaccgtt cactac                            26
418 <210> SEQ ID NO: 14
419 <211> LENGTH: 26
420 <212> TYPE: DNA
421 <213> ORGANISM: Artificial Sequence
423 <220> FEATURE:
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VERIFICATION SUMMARY ·   DATE: 08/30/2002
PATENT APPLICATION: US/10/018,892   TIME: 15:38:03

Input Set : A:\2577-112.txt
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L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date